

Appl. No. 10/615,680
Amdt. Dated January 11, 2005
Reply to Office Action of October 15, 2004

Attorney Docket No. 81872.0048
Customer No.: 26021

REMARKS/ARGUMENTS

Minor changes are made to this specification. Claims 1-2 and 5-6 are amended. Claims 9-13 are added. Claims 1-2 and 5-6 are independent claims. Claims 1-13 are pending in the application. Reexamination and reconsideration of the application, as amended, are respectfully requested.

ALLOWABLE SUBJECT MATTER:

The Office states, "Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims." In addition, in the examiner's statement of reasons for indication of allowable subject matter, the Office states the prior art of record fails to teach "the mechanical characteristic frequency of one of a plurality of wire thin lines is basically a frequency other n or 1/n times the mechanical characteristic frequency of the other wire thin lines."

The Applicant respectfully submits the allowable subject matter identified in the Office Action is claim 2 instead of claim 4. Applicant has re-written claim 2 in independent form including all the limitations of the base claim and any intervening claims. Withdrawal of the objection and allowance of claim 2 is respectfully requested.

New claims 11-13 depend from claim 2 and are patentable for at least the same reasons. Allowance of claims 11-13 is respectfully requested.

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CLAIM REJECTION UNDER 35 U.S.C. § 102:

Claim 1, 3, and 5-8 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Krauss, III (U.S. Patent No. 4,891,686). The Applicant respectfully traverse this rejection.

The presently amended independent claim 1 is recited below:

An apparatus, comprising:

a connecting conductor pattern formed on a substrate;

a device electrode pad formed on an electronic device; and

a plurality of wire thin lines respectively connecting a plurality of portions on the connecting conductor pattern on the substrate and a plurality of portions on the device electrode pad on the electronic device, wherein the plurality of wire thin lines differ from one another in mechanical characteristic frequencies in their connected states such that when one of the plurality of wire thin lines resonates with external vibrations and breaks, others of the plurality of wire thin lines do not resonate.

The present application teaches the mechanical characteristic frequencies of the wires relating to vibration characteristic of the wires. In particular, the amended claim 1 teaches the mechanical characteristic frequencies of the wires differ from one another so that when exterior vibration frequency coincides with the mechanical characteristic frequency of one wire, causing resonance and breakage of the wire, the other wires do not resonate or break (*see, application, Page 5, Line 21 to Page 6, Line 7*). Moreover the present application discloses the relationship between physical parameters of the wire thin lines, such as length and density, and mechanical characteristic frequencies (*see, application Pages 15-18*).

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The Applicant respectfully submits Krauss, III can not anticipate claim 1, because Krauss, III fails to teach or suggest "the plurality of wire thin lines differ from one another in mechanical characteristic frequencies in their connected states such that when one of the plurality of wire thin lines resonates with external vibrations and breaks, others of the plurality of wire thin lines do not resonate." Krauss, III is generally directed toward packaging technology wherein the leads are flat and on the same plane, and arranged to reduce inductance (*see, Krauss, III, abstract; Fig. 3*). The Office states Krauss, III teaches leads of different lengths, hence yielding different mechanical characteristic frequencies. The applicant respectfully submits Krauss, III does not teach or disclose mechanical characteristic frequencies of the leads, and certainly does not teach or suggest the mechanical characteristic frequencies of the leads differ from one another such that not all of leads resonate to the same exterior vibration frequency as required by the presently amended independent claim 1.

In light of the foregoing, Applicant respectfully submits the cited reference Krauss, III can not anticipate presently amended independent claim 1. Claims 3, 4 and newly added claim 9 depending from claim 1 can not be anticipated by Krauss, III for the same reasons discussed above. The presently amended independent claims 5 and 6 can not be anticipated by Krauss, III for the same foregoing reasons. Claims 7, 8 and newly added claim 10 depending from claim 6 can not be anticipated by the cited reference Krauss, III for at least the same foregoing reasons. Withdrawal of this rejection is thus respectfully requested.

Claim 1, 3, and 5-8 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Grellmann, et al. (U.S. Patent No. 4,686,492). The Applicant respectfully traverse this rejection.

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Grellmann is generally directed to connecting two electrical nodes with multiple parallel layers of bond wires for the purpose of reducing inductance (*see, Grellmann, abstract*). The Office states Grellmann teaches bond wires of different lengths, hence yielding different mechanical characteristic frequencies. The applicant respectfully submits Grellmann does not teach or disclose mechanical characteristic frequencies of the bond wires, and certainly does not teach or suggest the mechanical characteristic frequencies of the leads differ from one another such that not all of leads resonate to the same exterior vibration frequency as required by the presently amended independent claim 1.

In light of the foregoing, Applicant respectfully submits the cited reference Grellmann can not anticipate presently amended independent claim 1. Claims 3, 4 and newly added claim 9 depending from claim 1 can not be anticipated by Grellmann for the same reasons discussed above. The presently amended independent claims 5 and 6 can not be anticipated by Grellmann for the same foregoing reasons. Claims 7,8 and newly added claim 10 depending from claim 6 can not be anticipated by the cited reference Grellmann for at least the same foregoing reasons. Withdrawal of this rejection is thus respectfully requested.

CLAIM REJECTION UNDER 35 U.S.C. § 103:

Claim 4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Krauss, III (U.S. Patent No. 4,891,686)/ Grellmann, et al. (U.S. Patent No. 4,686,492) in view of Rostoker et al. (U.S. Patent No. 6,373,447). The Applicant respectfully traverse this rejection.

The applied reference Krauss, III/Grellman fails to teach or suggest the limitation "the plurality of wire thin lines differ from one another in mechanical characteristic frequencies in their connected states such that when one of the

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plurality of wire thin lines resonates with external vibrations and breaks, others of the plurality of wire thin lines do not resonate." as required by the presently amended independent claim 1. Rostoker is generally directed toward solid-state antenna used in vehicles (*see, Rostoker, abstract*). Rostoker does not teach or disclose mechanical characteristic frequencies of the bond wires, and certainly does not teach or suggest the mechanical characteristic frequencies of the bond wires differ from one another such that not all of leads resonate to the same exterior vibration frequency as required by the presently amended independent claim 1. According Rostoker does not remedy the deficiency of Krauss, III/Grellman.

In light of the foregoing, Applicant respectfully submits the cited references Krauss, III/Grellman and Rostoker can not render obvious the presently amended independent claim 1. Claim 4 depending from claim 1 can not be rendered obvious for at least the same foregoing reasons. Withdrawal of this rejection is thus respectfully requested.

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 337-6700 to discuss the steps necessary for placing the application in condition for allowance.

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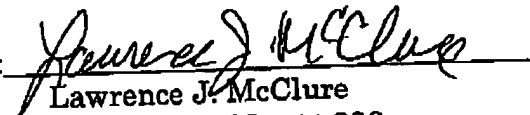
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If there are any fees due in connection with the filing of this response, please
charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,
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